APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,366	04/24/2001	Deborah A. Louis Wallace	SPCI115495	6571

26389   7590   06/30/2004

CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC
1420 FIFTH AVENUE
SUITE 2800
SEATTLE, WA 98101-2347

EXAMINER
NGUYEN, TRONG NHAN P

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☐ Claim(s) _____ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-37_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☑ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _10/22/02_
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-37 are being examined.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3.   Claims 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant is advised to cancel or amend the claims. Claim language of claim 32 is unclear and redundant.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5.   Claims 1-9, 12-21, and 24-37 are rejected under 35 U.S.C. 102(e) as being

anticipated by Papadopoulos et al, 6,282,454 (hereafter Papadopoulos).

6.   As per claim 1, Papadopoulos teaches a system for providing information

regarding the operation of a control system, comprising:

a Web server module (fig. 3, element 30) associated with said control system, said Web

server module having a memory operative to store a non-markup language Web site

database defining a Web site (fig. 3, element 52); and

a computer operative to receive non-markup language configuration data defining said

Web site, to store said configuration data as said Web site database, and to transmit

said Web site database to said Web server module (fig. 1, element 22, col. 3, lines 50-

57).

7.   As per claim 2, Papadopoulos teaches the system of claim 1, wherein said Web

server module is operative to receive a request for a Web page of said Web site and to

dynamically generate a markup language Web page from said Web site database in response to said request (F1, E20, C3, L50-55).

8.   As per claim 3, Papadopoulos teaches the method of claim 2, wherein said Web server module is operative to transmit said dynamically generated markup language Web page to a remote computer making said request (F1, E20, C3, L50-55).

9.   As per claim 4, Papadopoulos teaches the system of claims 3, wherein said Web site database further comprises a security profile map defining security level and privilege information for one or more users, and wherein said Web server module is further operative to identify a user associated with said request and to determine if said user is authorized to receive said Web page based upon an entry in said security profile map associated with said user (F2, E30, C4, L11-21).

10.   As per claim 5, Papadopoulos teaches the system of claims 2, wherein said Web site database further comprises data defining a Web page comprising a table for reading or writing the contents of a memory register contained within said control system (C5, L20-39).

11.   As per claim 6, Papadopoulos teaches the system of claim 2, wherein said Web site database further comprises data defining a Web page comprising a non-text

rendering of read or write data corresponding to contents of a memory register contained within said control system (C6, L5-10, L17-26).

12.   As per claim 7, Papadopoulos teaches the system of claim 5, wherein said request comprises a request for said Web page comprising a table, and wherein said Web server module is operative to identify said memory register, to determine the contents of said memory register, and to create said Web page comprising a table containing said contents of said memory register (C8, L40-44).

13.   As per claim 8, Papadopoulos teaches the system of claim 6, wherein said request comprises a request for said Web page comprising a non-text rendering, and wherein said Web server module is operative to identify said memory register, to determine the contents of said memory register, and to create said Web page comprising a non-text rendering based upon said contents of said memory register (F3, E62, C8, L26-40).

14.   As per claim 9, Papadopoulos teaches the system of claim 3, wherein said Web server module is electrically connected to said control system controller through a backplane interface (F3, E56 & E32).

15.   As per claim 12, Papadopoulos teaches the method of claim 3, wherein said request comprises a hyper-text transport protocol request and wherein said request is

received from a Web browser executing on said remote computer (F1, E10, C3, L50-57).

16.   As per claim 13, Papadopoulos teaches the method of claim 12, wherein said dynamically generated markup language Web page comprises a Web page identifying an alarm generated by said Web server module through the monitoring of data for said control system (F4, E160, C10, L1-7).

17.   As per claim 14, Papadopoulos teaches the method of claim 12, wherein said dynamically generated markup language Web page comprises a Web page identifying an event generated by said Web server module through the monitoring of data for said control system (C3, L66-67; C4, L1-4).

18.   As per claim 15, Papadopoulos teaches the method of claim 12, wherein said Web server module further comprises an Ethernet interface for receiving said Web site database and said requests and wherein said dynamically generated markup language Web page may comprise a Web page providing information regarding the status of said Ethernet interface (F3, E48, C4, L61-67; C5, L1-4).

19.   As per claim 17, Papadopoulos teaches the method of claim 12, wherein said dynamically generated markup language Web page comprises a Web page providing

system administrator or specific user-allowed access that allows active browser session modification of said security profile privileges (C4, L11-21).

20.   As per claim 18, Papadopoulos teaches the method of claim 12, wherein said Web server module is further operative to receive a plurality of said requests and wherein said dynamically generated markup language Web page may comprise a Web page identifying a like plurality of users connected to said Web server module and associated with said plurality of requests (C3, L50-57; C4, L16-21).

21.   As per claim 19, Papadopoulos shows an apparatus for providing information regarding the operating of a control system, comprising:

a central processing unit (F3, E46);

a memory coupled to said central processing unit operative to store a Web site database defining a Web site associated with said control system, said Web site database in a format that may be utilized by said central processing unit to dynamically render Web pages of said Web site (F3, E52);

a first interface coupled to said central processing unit for communicating with said control system controller and utilized by said central processing unit to retrieve and provide information regarding the operating of and for said control system (F3, E56);

a second interface for communicating with a remote computer also coupled to said central processing unit and utilized by said central processing unit to receive requests for said Web pages and to transmit responses to said requests (F3, E48).

22.   As per claim 20, Papadopoulos teaches the apparatus of claim 19, wherein said central processing unit is further operative to receive a request via said second interface for a Web page, to dynamically generate said Web page from said Web site database utilizing information obtained from said control system controller via said first interface, and to transmit said Web page in response to said request via said second interface (F3, E46, C3, L66-67; C4, L1-4).

23.   As per claim 21, Papadopoulos teaches the apparatus of claim 20, wherein said first interface comprises a backplane interface (F3, E56).

24.   As per claim 24, Papadopoulos teaches the apparatus of claim 20, further comprising a security profile map defining security privileges for one or more users, and wherein said central processing unit is further operative to identify a user associated with said request and to determine if said user is authorized to receive said Web page based upon entries in said security profile map associated with said user and said Web page (F2, E30, C4, L11-21).

25.   As per claim 25, Papadopoulos teaches the apparatus of claim 20, wherein said Web site database further comprises data defining a Web page comprising a table or non-text rendering for reading or writing the contents of a memory register contained within said control system (C5, L20-39).

26. As per claim 26, Papadopoulos teaches the apparatus of claim 25, wherein said request comprises a request for said Web page comprising a table or non-text rendering of data, and wherein said central processing unit is operative to identify said memory register, to determine the contents of said memory register, and to create said Web page comprising a table or non-text rendering corresponding to said contents of said memory register using said Web site database (F3, E62, C8, L26-40).

27. As per claim 27, Papadopoulos teaches a method for providing information regarding the operation of a control system, comprising: receiving non-markup language configuration data defining a Web site (F1, E20, C3, L48-60); and storing said configuration data as a non-markup language Web site database (F2, E30, C4, L9-12).

28. As per claim 28, Papadopoulos teaches the method of claim 27, further comprising transmitting said Web site database to a Web server module associated with said control system, wherein said Web server module is operative to receive requests for said Web site and to generate markup language Web pages from said Web site database in response to said requests (F1, E20, C3, L61-67; C4, L1-4).

29. As per claim 29, Papadopoulos teaches the method of claim 27, wherein said configuration data comprises data defining Web pages comprising a table or non-text

rendering corresponding to the contents of read or write memory registers contained within said control system (C6, L27-45).

30.   As per claim 30, Papadopoulos teaches the method of claim 29, wherein said data defining said table is created by receiving a mapping of a text tag to said memory register and by receiving a selection of said tags and a request that said tag be displayed in said table (C6, L27-45).

31.   As per claim 31, Papadopoulos teaches the method of claim 29, wherein said data defining said non-text rendering is created by receiving a mapping of a tag to said memory register and a request that said tag be displayed via said non-text rendering (C6, L46-62).

32.   As per claim 32, Papadopoulos teaches the method of claim 27, wherein said configuration data comprises configuration data for said Web server module (F2, E30, C4, L11-24).

33.   As per claim 33, Papadopoulos teaches the method of claim 32, wherein said configuration data for said Web server module comprises an internet protocol address for said Web server module (F1, E18, C3, L48-50).

34.   As per claim 34, Papadopoulos teaches the method of claim 27, wherein

receiving non-markup language configuration data defining a Web site comprises

receiving the selection of one or more of a plurality of defined Web pages (C3, L61-67;

C4, L1-4).

35.   As per claim 35, Papadopoulos teaches the method of claim 32, wherein said

plurality of defined Web pages comprises a security page, an alarm Web page, an

event Web page, an Ethernet Web page, a serial port Web page, a menu Web page, a

data access Web page, a page identifying online users, or a systems administrator

page (C4, L9-21).

36.   Claims 36-37 are rejected for the same reasons as claims 27-35.

Claim Rejections – 35 USC § 103

37.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

38.   Claims 10, 11, 22, and 23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Papadopoulos in view of Sharood et al, 6,453,687 (hereafter

Sharood).

39.   As per claims 10, 11, 22 and 23, Papadopoulos does not show the system of

claims 3 and 20, wherein said Web server module is electrically connected to said

control system controller through a serial or network interface.

Sharood shows a module that is electrically connected to a control system controller

through a serial or network interface (F2, E204 & E206, C5, L21-28).

It would have been obvious to one of ordinary skill in the art at the time of invention to

modify Papadopoulos by including the use of a module which is connected to a control

system through a serial or network interface in view of Sharood (F2, E204 & E206, C5,

L21-28).   One of ordinary skill in the art would have been motivated to combine the

teachings of Papadopoulos and Sharood to enhance the compatibility interfaces of the

web server module by allowing it to connect to the PLC via a variety of communication

interfaces.

40.   As per claim 16, Papadopoulos does not show the method of claim 12, wherein

said Web server module further comprises a serial port interface and wherein said

dynamically generated markup language Web page may comprise a Web page providing information regarding said serial port interface.

However, Papadopoulos does show a web server module that can retrieve all pertinent data regarding the operation of the programmable logic control system (abstract and C2, L37-40). Sharood also shows a module that can retrieve data from the control system via a plurality of interfaces including RF, serial, network, etc. (F2, E204, C5, L21-28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Papadopoulos by including the use of a module which is connected to a control system through a serial port interface in view of Sharood (F2, E204, C5, L21-28). One of ordinary skill in the art would have been motivated to combine the teachings of Papadopoulos and Sharood to allow the web server module to display a web page providing information regarding the serial port or any of the communication interfaces.

Conclusion

41.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Control of Remote Devices Using HTTP Protocol – Mizuno, WO 97/18636 – control of remote devices is achieved by having HTTP (Web server) on a dedicated firmware device.

- Web Interface to an Input/Output Device – Baker et al, 6,732,191 – control system allows a user to access an input/output device over a communication network using a web browser.

- Dual Ethernet Protocol Stack for Maximum Speed Access to a Programmable Logic Controller (PLC) – Papadopoulos et al, 6,587,884 – control system includes an Internet web interface to a network of at least one PLC system running an application program for controlling output devices in response to status of input devices.

- Communication System Enabling Programmable Logic Controllers (PLC) Access to Host Computer Tasks & PLC Without Polling – Sackmann et al, 5,131,092

- System and Method of Controlling Statistically Analyzing and Graphically Displaying Quality Control Data for a Manufacturing Process – Douglas, 6,574,522

- Web Interface to Programmable Controller – Papadopoulos et al, 6,484,061

42.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack P Nguyen whose telephone number is (703) 605-4299. The examiner can normally be reached on M-F 8:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

jpn

ZARNI MAUNG
PRIMARY EXAMINER